

MINNESOTA ENERGY CODE

1-2 Family Residential Building RESIDENTIAL "COOKBOOK" WORKSHEET

Applicant Name	Phone	Date	This building is a: <input type="checkbox"/> Category 2 Building (meets minimum code requirements for air tightness and wind wash barriers) <input type="checkbox"/> Category 1 Building (meets all Category 2 requirements, has additional air tightness, and a Residential Mechanical Ventilation System) <input type="checkbox"/> Plans must be clearly marked with insulation R-values, window and door U-values, and heating and cooling equipment efficiencies.	Statement of Compliance: The proposed building design represented in these documents is consistent with the building plans, specifications, and other calculations submitted with the permit application. The proposed building has been designed to meet the requirements of the Minnesota Energy Code.
Applicant Address				
Building Address:				Applicant/Engineer _____

MINIMUM REQUIREMENTS for "Cookbook" Option:

Entry Doors	1-3/4" solid wood w/ storm door or equivalent Maximum U-value: 0.30	Ceiling with energy truss (7½" or more —top plate to roof)	R-38**	Rim joist	R-19
Foundation	1/2" Insulated Glass in wood or vinyl frame	Ceiling with low heel truss (7½" or less—top plate to roof)	R-44**	Floor over unconditioned space	R-24
Windows*		Ceiling—no attic	R-38 w/ R-5 sheathing		
*Include square footage in calculation of Window/Door Area to determine above grade Window U-Value.		**Insulation Performance at Winter Design Conditions			

$$\text{Window and Door Area As \% of Exposed Wall Area} = \frac{100 \times \text{Window/Door Area}}{\text{Gross Wall Area}} = \text{Window/Door Area \%}$$

WINDOW U-VALUE :
Source: NFRC _____ or ASHRAE 1993 Handbook _____

MAXIMUM WINDOW U-VALUES:

Check Wall Type Used	WALL TYPE	MAXIMUM WINDOW AND DOOR AREA % OF EXPOSED WALL AREA											
		12%	14%	16%	18%	20%	22%	24%	26%	28%	30%	32%	34%
	TYPE A 2x4 framing, R-13 insulation, sheathing R-7 or greater.	0.55	0.47	0.41	0.36	0.33	0.30	0.27	0.25	0.23	0.22	0.20	0.19
	TYPE B 2x4 framing, R-15 insulation, sheathing R-5 or greater.	0.52	0.45	0.39	0.35	0.31	0.28	0.26	0.24	0.22	0.21	0.20	0.18
	TYPE C 2x6 framing, R-19 insulation, sheathing less than R-5.	0.48	0.41	0.36	0.32	0.29	0.26	0.24	0.22	0.21	0.19	0.18	0.17
	TYPE D 2x6 framing, R-19 insulation, sheathing R-5 or greater.	0.56	0.48	0.42	0.37	0.34	0.31	0.28	0.26	0.24	0.22	0.21	0.20
	TYPE E 2x6 framing, R-21 insulation, sheathing less than R-5.	0.51	0.43	0.38	0.34	0.30	0.28	0.25	0.23				
	TYPE F 2x6 framing, R-21 insulation, sheathing R-5 or greater.	0.58	0.50	0.44	0.39	0.35	0.32	0.29					

This is a summary only. Other requirements may apply. See the Minnesota Energy Code.

Questions? Call Department of Public Service Information Center at 612/296-5175 or 1-800/657-3710.



5/9/96